

Goal 2: Clean and Safe Water

All Americans will have drinking water that is clean and safe to drink. Effective protection of America's rivers, lakes, wetlands, aquifers, and coastal and ocean waters will sustain fish, plants, and wildlife, as well as recreational, subsistence, and economic activities. Watersheds and their aquatic ecosystems will be restored and protected to improve human health, enhance water quality, reduce flooding, and provide habitat for wildlife.

Means and Strategy

To achieve the Nation's clean and safe water goals, EPA will operate under an overarching watershed approach in carrying out its statutory authorities under both the Safe Drinking Water Act Amendments (SDWA) of 1996 and the Clean Water Act (CWA). Protecting watersheds involves participation by a wide variety of stakeholders, a comprehensive assessment of the condition of the watershed, and implementation of solutions based on sound science and stakeholder input. Full involvement of stakeholders at all levels of government, the regulated community, and the public is fundamental to the watershed approach. The watershed approach helps EPA, its Federal partners, states, tribes, local governments, and other stakeholders to implement tailored solutions and maximize the benefits gained from the use of increasingly scarce resources.

EPA will continue to implement the SDWA Amendments of 1996 that chart a new and challenging course for EPA, states, tribes, and water suppliers. The central provisions of the Amendments include 1) improving the way that EPA sets drinking water safety standards and develops regulations based on good science, prioritization of effort, sound risk assessment, and effective risk management; 2) providing flexibility to the states in monitoring for certain contaminants and in setting time frames for compliance with regulations, and providing funding for improvements to drinking water infrastructure through the Drinking Water State Revolving Fund (DWSRF); 3) establishing new prevention approaches, including provisions for operator certification, capacity development, and source water protection; and 4) providing better information to consumers, including consumer confidence reports.

EPA has a significant role in protecting public health from terrorist attacks on the nation's critical water

infrastructure. Through Presidential Decision Directive (PDD) 63, EPA is working through a public-private partnership to safeguard water supplies and wastewater treatment from terrorist acts. Using FY 02 base and supplemental funds, EPA and its partners, especially the American Water Works Association (AWWA) and the Association of Metropolitan Water Agencies (AMWA), fulfill this responsibility by providing technical and financial assistance to utilities to assess vulnerabilities of water supplies and to take appropriate actions to protect water systems.

EPA will continue efforts to provide states and tribes tools and information to assist them in protecting their residents from health risks associated with contaminated recreational waters and noncommercially-caught fish. These tools will help reduce health risks, including risks to sensitive populations such as children and subsistence and recreational anglers. EPA activities include development of water quality criteria (including aquatic life, human health, biological, nutrient, and pathogen criteria), enhanced fish tissue monitoring, development of fish and shellfish consumption advisories, and risk assessment activities. For beaches, EPA's three-part strategy is to strengthen beach standards and testing, improve the scientific basis for beach assessment, and develop methods to inform the public about beach conditions. Beach water quality monitoring and public notification will be improved by providing grants to state and local governments as authorized under Section 406 of the Clean Water Act. These efforts help implement the Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000 with its emphasis on developing strong monitoring and notification programs.

Key to the watershed approach is continued development of scientifically-based water quality standards and criteria under the CWA and better consolidated identification of waters not meeting these goals under Sections 303(d) and 305(b). Where water

quality standards are not being met, EPA will work with states and tribes to improve implementation of a Total Maximum Daily Load (TMDL) program that establishes the analytical basis for watershed-based decisions on needed pollution reductions. To support states and tribes in their standards adoption and TMDL programs, EPA will continue to provide scientifically sound criteria and guidance for toxic chemicals, nutrients, biological integrity, microbial, and physical stressors. EPA will continue to develop and revise national effluent guideline limitations and standards, capitalize and manage the Clean Water State Revolving Fund (CWSRF) program and other funding mechanisms, strengthen the focus of state nonpoint source programs on protecting and restoring waterbodies, and target the National Pollutant Discharge Elimination System (NPDES) permit program to achieve progress toward attainment of water quality standards and support implementation of TMDLs in impaired water bodies. The Agency will continue to work with states to reduce the NPDES permit backlog and to expand data management/electronic information activities to include permit information on storm water, combined sewer overflows (CSOs), sanitary sewer overflows (SSOs), concentrated animal feeding operations (CAFOs), indirect discharges, and other emerging areas. Annual performance goals to reduce discharges and to prevent pass through to the Nation's waters will identify these sources and model their loading reductions. With concrete information on the NPDES universe, including sufficient data to model loading reductions from all classes of discharges and integration of that information with other water quality data, EPA will be better able to describe the environmental improvements from approximately 550,000 point sources covered by NPDES permits.

EPA has moved forward to provide guidance and regulations to cover the expanding universe of NPDES facilities. The phase II storm water rule's permitting requirements become effective in FY 2003, and the CAFO rule will be issued in December 2002. Work to address CSOs and SSOs is also proceeding. EPA is completing guidance and data collection for reports to Congress as required by the Wet Weather Water Quality Act of 2000. Strategies are being developed for other emerging areas, such as pesticide discharges and invasive species, as well as expedited permitting of energy facilities.

The Clean Water SRF is an important tool for achieving clean and safe water by helping communities meet their significant needs for wastewater infrastructure over the next 20 years and providing increased support to address nonpoint source problems. The budget request includes \$1.212 billion for the CWSRF. This investment continues EPA's for the CWSRF to provide \$2 billion in average annual financial assistance over the long-term even after Federal assistance ends. Total SRF funds available for loans as of July 2001, reflecting loan repayments, state match dollars, and other sources of funding, are approximately \$37.7 billion, of which \$34.3 billion has been provided to communities as financial assistance. The Agency again requests that state flexibility to address their most critical demands be continued by extending their authority for limited funds transfers between the CWSRF and DWSRF for one year.

EPA is assisting states and tribes to characterize risks, rank priorities, and implement a mix of voluntary and regulatory approaches through improved state nonpoint source (NPS) management programs. Working with EPA, states and tribes are strengthening their NPS programs to ensure that needed nonpoint source controls are implemented to achieve and maintain beneficial uses of water. In particular, EPA and the states are working together to better use the Clean Water Act Section 319 framework and funds to develop and implement nonpoint source TMDLs. States will continue to implement coastal NPS programs approved by EPA and the National Oceanic and Atmospheric Administration under the Coastal Zone Act Reauthorization Amendments, and to work with the U.S. Department of Agriculture to promote implementation of Farm Bill programs consistent with state nonpoint source management needs and priorities. EPA will also provide tools to states to assess and strengthen controls on air deposition sources of nitrogen, mercury, and other toxics.

With respect to wetlands, EPA will work with Federal, state, Tribal, local, and private sector partners on protection and community-based restoration of wetlands, and with its Federal partners to avoid, minimize, and compensate for wetland losses through the CWA Section 404 and Farm Bill programs. In particular, the agency will focus its efforts on developing appropriate tools to assess wetlands extent and condition, increasing the success of wetlands

restoration projects, and protecting vulnerable wetlands. EPA will be part of coordinated Federal agency efforts to support conservation of fauna, including the North American Bird Conservation Initiative and Partners for Amphibians and Reptile Conservation.

EPA will work with states, tribes, municipalities, and the regulated community to ensure that the Phase II rules for the storm water program are implemented to address problems caused by sediment and other pollutants in our waters. EPA will also establish criteria for nutrients (i.e., nitrogen and phosphorus) so that more states can develop water quality standards that protect waters from harmful algal blooms such as *pfisteria*, and prevent dead zones and fish kills which can develop as a result of an excess of these nutrients. EPA will work with states to fund priority watershed projects through the CWSRF to reduce nonpoint and estuary pollution. The Agency will also work to reduce pollution from failing septic systems. Finally, EPA will have a coordinated strategy for protecting drinking water sources that includes microbial pathogen, chemical, and nutrient criteria.

Research

EPA's research efforts will continue to strengthen the scientific basis for drinking water standards through the use of improved methods and new data to better evaluate the risks associated with exposure to chemical and microbial contaminants in drinking water. To support the research provisions of the 1996 Safe Drinking Water Act (SDWA) amendments, the Agency's drinking water research will develop dose-response information on disinfection by-products (DBPs), waterborne pathogens, arsenic, and other drinking water contaminants for characterization of potential health risks from consuming tap water. The focus will be on filling key data gaps and developing analytical detection methods for measuring the occurrence of chemical and microbial contaminants on the Contaminant Candidate List (CCL). The Agency will develop and evaluate cost-effective treatment technologies for removing pathogens from water supplies while minimizing DBP formation, for maintaining the quality of treated water in the distribution system and for preventing the intrusion of microbial contamination. By reducing uncertainties and improving methods associated with the assessment and control of risks posed by exposure to microbial

contaminants in drinking water, EPA is providing the scientific basis necessary to protect human health and ensure that by 2005, 95 percent of the population served by community water systems will receive water that meets health-based drinking water standards.

Research to support the protection and enhancement of aquatic ecosystems and their biotic components includes understanding the structure, function, and characteristics of aquatic systems, and evaluating exposures and effects of stressors on those systems. EPA is also working to develop biological and landscape indicators of ecosystem condition, sources of impairment, and stressor response/fate and transport models. The results of these efforts will improve risk assessment methods to develop aquatic life, sediment, habitat, and wildlife criteria, as well as risk management strategies and will help EPA and other Federal, state, and local agencies develop better baseline assessments of water quality. Through the development of a framework for diagnosing adverse effects of chemical pollutants in surface waters, EPA will be able to evaluate the risks posed by chemicals that persist in the environment and accumulate in the food chain, threatening wildlife and potentially human health. This research will facilitate ecological health assessment of the nation's waters, providing water resource managers with tools for determining whether their aquatic resources support healthy aquatic communities. The Agency also will develop cost-effective technologies for managing suspended solids and sediments with an emphasis on identifying innovative in situ solutions.

Research in this goal will also provide the scientific basis and technical support for program, regional and state efforts to protect and inform recreational water users. A sound scientific foundation connecting water quality indicators and human disease will be established. This research will also develop diagnostic tools to evaluate human and ecological exposures to toxic constituents of wet weather flows (combined-sewer overflows (CSOs), sanitary-sewer overflows (SSOs), and stormwater). These events pose significant risks to human and ecological health through the uncontrolled release of pathogenic bacteria, protozoans, and viruses as well as a number of potentially toxic, bioaccumulative contaminants. EPA will develop and validate effective watershed management strategies and tools for controlling wet

weather flows (WWFs), including: (1) new and improved indicator methods to describe the toxic inputs to watersheds from WWFs; (2) methods to utilize condition and diagnostic ecological indicators in evaluating wet weather flow management strategies in preventing degradation of water and sediment quality by contaminated runoff; (3) methods for diagnosing multiple stressors in watershed ecosystems; and (4) evaluation of low cost watershed best management practices to evaluate risks associated with various control technologies for wet weather flows.

External Factors

Drinking Water and Source Water

The SDWA Amendments of 1996 is one of the first environmental statutes to modify the Agency's traditional regulatory approach by encouraging a consensus-building process that includes EPA, the states, and all other drinking water stakeholders as partners in the development and implementation of regulations. To date, this extensive collaborative and consensus approach has improved the Agency's efforts to implement the 1996 SDWA amendments. The complexity of identifying appropriate treatment technologies for the contaminants specifically identified in the amendments and determining which contaminants on the CCL to regulate pose a continuing challenge in implementing the 1996 SDWA amendments.

The adoption of health-based and other programmatic regulations by the states is another critical factor. Since almost all states have primary enforcement authority (primacy) for drinking water regulations, the states must have sufficient staff and resources to work with public water systems to ensure that systems implement, and comply with, new regulations. To help states with these efforts, EPA has increased Public Water Systems Supervision grant funding by approximately 60 percent since FY 1993. In addition, the use of state set-asides authorized in the enabling legislation for the DWSRF combined with required matching funds from the states is another significant source of funding for state drinking water implementation activities. However, the need to preserve DWSRF funding for infrastructure purposes

coupled with state hiring restrictions may have some impact on implementation efforts.

The cost of providing safe drinking water -- finding a water supply, treating the water, delivering the water, and maintaining the system -- will continue to be a challenge. EPA's 2001 Drinking Water Needs Survey Report to Congress estimates that drinking water systems will need to invest \$150.9 billion over a 20-year period to ensure the continued provision of safe drinking water.

Full implementation of the Underground Injection Control (UIC) program, including shallow injection wells of which two types are regulated through a rule promulgated in 1999, depends on state and local participation. Because of the sheer number of shallow injection wells -- over 600,000 nationwide -- and the threat they pose to ground water sources of drinking water, implementation of the overall UIC program could be affected by resource constraints at the state level. In addition, the Agency has full or partial direct implementation responsibility for 17 states, the District of Columbia and all tribes.

Fish and Recreational Waters

The Agency's success in protecting human health from consumption of contaminated fish or exposure to contaminated recreational waters could be impacted by several major constraints, including lack of regulatory authority, inability to measure behavior, and lack of state and local resources.

The Clean Water Act (CWA) does not require that states or tribes operate fish advisory or beach protection programs. The Agency's role is primarily to support them through guidance, scientific information, and technical assistance. EPA cannot take regulatory action to assure that states and tribes conform to fish consumption advisory guidance; therefore, success depends on voluntary state/Tribal/local commitment to achieving these goals. The Agency will continue to develop scientifically sound water quality criteria to protect human health in order to reduce the number of fish advisories and beach advisories or closures necessary in the future.

The Beaches Environmental Assessment Act and Coastal Health (BEACH) Act of 2000 provides

Federal funds for states and tribes to monitor pathogens at coastal and Great Lakes beaches and notify the public of advisories or closures; however, the states and tribes are not required to operate a program if they do not accept Federal funds. The Agency expects that all 35 eligible states or territories will begin to operate a federally funded program by FY 2003.

One way of determining whether we have reduced the consumption of contaminated fish and shellfish is to find out if people eat the fish they catch from waters where fish advisories have been issued. In order to determine whether we have reduced exposure to contaminated recreational waters, we also need to know if people comply with beach closure notices when they are issued. Acquiring statistical evidence for such determinations is difficult. For the fish advisory program, this information has been collected by some states, and is being reviewed to provide insight to state and Tribal advisory programs on how they can improve their programs. For the beach programs, this information will be collected for those states or tribes which have applied for BEACH Act grants; however, this information will only reflect coastal and Great Lakes beaches in those states and tribes that have received grants.

Without comprehensive, consistent monitoring of all the Nation's waters, we do not know how many waters should be under advisory or how many beaches should be closed. The resource demands of implementing a comprehensive monitoring program pose a significant challenge for the states and may be a limiting factor for success in this area.

Watersheds and Wetlands

EPA's efforts to meet our watershed protection objective are predicated on the continuation and improvement of relationships with our Federal, state, Tribal, and local partners. Because of the vast geographic scope of water quality and wetlands impairments and the large number of partners upon whose efforts we depend, we must continue to build strong and lasting relationships with all stakeholders including communities, individuals, business, state and local governments and tribes. EPA's ability to meet this objective will depend on the success of regulatory and non-regulatory programs and nationwide efforts to provide and use a broad range of policy, planning, and

scientific tools to establish local goals and assess progress.

Given the interrelations of the Federal government's environmental protection and stewardship agency and programs, Federal resource and protection agencies must work together with states and tribes to maximize achievements. Without continued government-wide coordination and commitment, we may not meet our water quality objectives. For example, coordination with and utilization of Farm Bill conservation programs are crucial, particularly to enhancement of state nonpoint source management programs. Starting in FY 2000, as an incentive for states to upgrade these programs, the incremental Section 319 grant funds over \$100 million in base funding have gone only to states with approved upgraded 319 programs. The states will also need to continue efforts to overcome historical institutional barriers to achieve full implementation of their coastal nonpoint pollution control programs as required under the Coastal Zone Act Reauthorization Amendments.

Success in meeting our wetlands objectives is particularly dependent on the continuing and enhanced cooperation with the Army Corps of Engineers, who has lead responsibility for wetland permitting, Fish and Wildlife Service, National Marine Fisheries Service, Federal Emergency Management Agency, and the Natural Resources Conservation Service. Recent court rulings (and related future rulings) will also have a significant impact on efforts to achieve environmental objectives in the wetlands program.

In addition, we must continue to improve our understanding of the environmental baseline and our ability to track progress against goals, which also depends on external parties. While the Index of Watershed Indicators and state 305(b) reporting provide some assessments of water quality, we will continue to depend upon and provide support to our partners and stakeholders in their efforts to improve measurement tools and capabilities including state consolidation of Section 305(b) reports and Section 303(d) lists. EPA is working with states to improve our tracking and measurement of NPS load reductions from the CWA Section 319 program. Also, as states adopt TMDLs, we will have specific targets for point source and NPS load reductions needed to meet water quality standards in impaired waters.

Point Sources

States and localities are assumed to be able to continue to raise sufficient funds for construction of necessary wastewater treatment and control facilities to accompany Federal financial assistance. In addition states must be able to maintain sufficient programmatic funds to continue to effectively manage point source programs.

Clean water goals associated with reduction of pollutant discharges from point sources through the National Pollutant Discharge Elimination System

partnership with states as 44 states and 1 territory are currently authorized to carry out the NPDES program. EPA will also work with the states to reduce pollution from onsite- decentralized wastewater treatment systems, including septic systems. Surveys estimate that, nationally, about 10 percent of onsite-decentralized systems are malfunctioning. EPA is developing guidance to help states and local governments improve the way on-site decentralized systems are designed, sited, installed and managed to reduce water-related impacts.

Resource Summary

(Dollars in Thousands)

	FY 2001	FY 2002	FY 2003
	Actuals	Enacted	Request
Clean and Safe Water	\$3,627,441.4	\$3,738,990.3	\$3,214,674.2
Safe Drinking Water, Fish and Recreational Waters	\$1,171,900.7	\$1,356,291.1	\$1,148,425.1
Environmental Program & Management	\$128,789.7	\$128,346.7	\$110,143.9
Science & Technology	\$52,429.6	\$144,126.2	\$69,230.1
State and Tribal Assistance Grants	\$990,681.4	\$1,083,818.2	\$969,051.1
Protect Watersheds and Aquatic Communities	\$448,020.6	\$463,061.1	\$435,814.7
Environmental Program & Management	\$193,598.5	\$189,431.4	\$162,894.0
Hazardous Substance Superfund	\$0.0	\$28.8	\$25.7
Science & Technology	\$36,625.8	\$41,478.8	\$38,592.9
State and Tribal Assistance Grants	\$217,796.3	\$232,122.1	\$234,302.1
Reduce Loadings and Air Deposition	\$2,007,520.1	\$2,008,432.1	\$1,630,434.4
Environmental Program & Management	\$143,264.6	\$152,956.6	\$134,461.0
Science & Technology	\$10,719.4	\$7,585.8	\$5,496.6
State and Tribal Assistance Grants	\$1,853,536.1	\$1,847,889.7	\$1,490,476.8
Total Workyears	2,628.1	2,737.3	2,742.8

Objective 1: Safe Drinking Water, Fish and Recreational Waters

By 2005, protect public health so that 95% of the population served by community water systems will receive water that meets drinking water standards, consumption of contaminated fish and shellfish will be reduced, and exposure to microbial and other forms of contamination in waters used for recreation will be reduced.

Key Program

(Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$783.6	\$0.0	\$0.0	\$0.0
Beach Grants	\$0.0	\$10,000.0	\$10,000.0	\$0.0
Congressionally Mandated Projects	\$129,188.8	\$143,897.2	\$0.0	(\$143,897.2)
Drinking Water Implementation	\$35,058.0	\$38,332.9	\$38,935.0	\$602.1
Drinking Water Regulations	\$36,181.1	\$28,597.4	\$30,034.0	\$1,436.6
EMPACT	\$793.9	\$0.0	\$0.0	\$0.0
Facilities Infrastructure and Operations	\$12,624.6	\$12,116.5	\$12,372.6	\$256.1
Fish Contamination/Consumption	\$3,188.4	\$2,764.8	\$2,788.4	\$23.6
Homeland Security	\$1,963.2	\$86,058.1	\$16,946.5	(\$69,111.6)
Legal Services	\$1,135.4	\$1,206.3	\$1,317.6	\$111.3
Management Services and Stewardship	\$2,789.0	\$4,025.0	\$4,240.2	\$215.2
PWSS - Homeland Security	\$0.0	\$5,000.0	\$5,000.0	\$0.0
Preventing Contamination of Drinking Water Sources	\$22,424.7	\$23,470.2	\$22,096.8	(\$1,373.4)

Regional Management	\$253.7	\$357.7	\$309.2	(\$48.5)
Safe Drinking Water Research	\$47,784.7	\$45,579.5	\$49,491.0	\$3,911.5
Safe Recreational Waters	\$917.9	\$834.4	\$842.7	\$8.3
State PWSS Grants	\$93,100.2	\$93,100.2	\$93,100.2	\$0.0
State Pollution Control Grants (Section 106)	\$1,995.6	\$0.0	\$0.0	\$0.0
State Underground Injection Control Grants	\$10,950.9	\$10,950.9	\$10,950.9	\$0.0
Water Infrastructure:Drinking Water State Revolving Fund (DW-SRF)	\$823,185.0	\$850,000.0	\$850,000.0	\$0.0

Annual Performance Goals and Measures

Safe Drinking Water

In 2003	85 percent of the population served by community water systems will receive drinking water meeting health-based standards promulgated in or after 1998.
In 2003	92% of the population served by community water systems will receive drinking water meeting all health-based standards in effect as of 1994, up from 83% in 1994.
In 2003	93 percent of the population served by non-community, non-transient drinking water systems will receive drinking water for which no violations of Federally enforceable health standards have occurred during the year, up from 88% in 1994.
In 2002	85 percent of the population served by community water systems will receive drinking water meeting health-based standards promulgated in 1998.
In 2002	91 percent of the population served by community water systems will receive drinking water meeting all health-based standards, up from 83% in 1994.
In 2002	93 percent of the population served by non-community, non-transient drinking water systems will receive drinking water for which no violations of Federally enforceable health standards have occurred during the year, up from 88% in 1994.
In 2001	91 percent of the population served by water systems received drinking water meeting all health-based standards that were in effect as of 1994.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Population served by non-community, non-transient drinking water systems with no violations during the year of any Federally enforceable health-based standards that were in place by 1994.	92	93	93	% population
Percent of population served by community drinking water systems with no violations during the year of any Federally enforceable health-based standards that were in place by 1994.	91	91	92	% Population
Population served by community water systems providing drinking water meeting health-based standards promulgated in or after 1998.		85	85	% Population

Baseline: In 1998, 85% of the population that was served by community water systems and 96% of the population served by non-community, non-transient drinking water systems received drinking water for which no violations of Federally enforceable health standards had occurred during the year.

Drinking Water Systems Operations

In 2003	Enhance homeland security by securing the nation's critical drinking water infrastructure.
In 2003	Enhance protection of tribal health by increasing the percentage of tribal community and non-community water systems that are run by certified operators.
In 2003	Protect human health and ensure compliance with health-based drinking water standards through use of the Drinking Water State Revolving Fund (DWSRF).
In 2002	Enhance homeland security by securing the nation's critical drinking water infrastructure.
In 2002	Enhance protection of tribal health by increasing the percentage of tribal community and non-community water systems that are run by certified operators.
In 2002	Protect human health and ensure compliance with health-based drinking water standards through use of the Drinking Water State Revolving Fund (DWSRF).
In 2001	69% of tribal community and non-transient non-community water systems have a certified operator.
In 2001	Protected human health and ensured compliance with health-based drinking water standards by initiating 822 DWSRF operations and having 1,876 assistance agreements to community and non-community drinking water systems.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
DWSRF assistance agreements to community and non-community drinking water systems. (cumulative)	1876	2,400	3,000	Agreements
Tribal community and non-transient non-community water systems with a certified operator.	69%	70%	73%	Water systems
Percent of the population served by, and the number of medium-sized (10,001 - 100,000 served) community water systems that have completed or are conducting vulnerability assessments.			100%/3,416	% pop/systems
Percent of the population served by, and the number of, small (fewer than 10,000 served) community water systems that have completed or are conducting vulnerability assessments.			50%/25,100	% pop/systems
DWSRF projects that have initiated operations. (cumulative)	822	1,100	1,600	Projects

Baseline: In FY99, there were 792 DWSRF assistance agreements to community and non-community drinking water systems. DWSRF projects will begin to initiate operations in 2000. As of 1999, 56% of tribal community and non-transient non-community water systems had certified operators.

Rules for High-Risk Contaminants

- In 2003 Ensure public health protection by identifying and studying potentially harmful contaminants in drinking water and developing, issuing, and revising regulations and/or guidance to limit exposure to contaminants found to be harmful to people.
- In 2002 Expand public health protection through: 1) promulgating or proposing new regulations; 2) reviewing existing regulations of potentially harmful contaminants; and 3) developing guidance and proposed regulations of potentially harmful contaminants.
- In 2001 Expanded public health protection through the promulgation of arsenic, radionuclides, filter backwash, and made 9 determinations whether or not to regulate potentially harmful contaminants from the CCL.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Number of health risk assessments started/completed for contaminants that are potentially harmful to people.	9			Assessments

Regulatory determinations for potentially harmful contaminants.	5		Determinations
Number of regulations and associated technical guidance documents promulgated.		1 / 4	Reg / Guide
Number of regulations and associated technical guidance documents proposed.		2 / 6	Reg / Guide
Number of regulations and associated technical guidance documents proposed/promulgated.			2/1 Regs/guidances
Regulations promulgated/proposed.	3		Regulations

Baseline: By the end of 2000 an estimated 5 rules will have been promulgated.

Underground Injection Well Management

- In 2003 Target implementation of UIC regulations to ensure low risk of contamination to source water resources.
- In 2002 Target implementation of UIC regulations to ensure low risk of contamination to source water resources
- In 2001 Through the UIC program, EPA contributed to the protection of ground water sources of drinking water from potential endangerment by bringing 11,266 Class IV/V wells under specific controls through permits or closure.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
States that have formally adopted the Class V rule.	8			States
Class IV/V wells (by well type) brought under specific controls through permits or closures.	11,266			Wells
Issue proposed Phase 2 UIC Class V regulatory action.	1			Action
Percentage of Class I, II, & III wells out of compliance with a permit and/or rules authorized that are returned to compliance.		90		% Wells
Number of large capacity cesspools closed. (Class V)		125		Cesspools
Number of motor vehicle disposal wells closed and/or permitted. (Class V)		325	400	Wells
Percentage of underground injection wells out of compliance with a permit and/or rule authorized that are returned to compliance in an appropriate and timely manner. (Classes I, II, and III only)			90	% wells
UIC wells plugged as a direct action by the UIC program or indirectly by another program working in partnership with UIC to protect ground water sources of drinking water.	2,766			Wells

Baseline: As of January 2000, no states had adopted the Class V Rule as the Rule was just finalized in December 1999.

River/Lake Assessments for Fish Consumption

- In 2003 Reduce consumption of contaminated fish by increasing the information available to States, Tribes, local governments, citizens, and decision-makers.
- In 2002 10% of the nation's river miles and 26% of nation's lake acres will have been assessed to determine if they contain fish and shellfish that should not be eaten or should be eaten in only limited quantities.
- In 2001 9% of the nation's river miles and 23% of nation's lake acres have been assessed to determine if they contain fish and shellfish that should not be eaten or should be eaten in only limited quantities.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Lake acres assessed for the need for fish advisories and compilation of state-issued fish consumption advisory methodologies. (cumulative)	23	26	29	% lake acres
States/Tribes monitoring and conducting assessments based on the national guidance to establish nationally consistent fish advisories.	40/41	40	45	States/Tribes
River miles assessed for the need for fish consumption advisories & compilation of state-issued fish consumption advisory methodologies. (cumulative)	9	10	11%	River miles

Baseline: In 1999, 7% of the Nation's rivers and 15% of the Nation's lakes were assessed to determine if they contained fish that should not be eaten or should be eaten in only limited quantities. In September 1999, 25 states/tribes are monitoring and conducting assessments based on the national guidance to establish nationally consistent fish advisories. In the upcoming 2000 Report to Congress on the National Water Quality Inventory, 69% of assessed river and stream miles; 63% of assessed lake, reservoir, and pond acres; and 53% of assessed estuarie square miles supported their designated use for fish consumption. For shell fish consumption, 77% of assessed estuary square miles met this designated use.

Increase Information on Beaches

- In 2003 Reduce human exposure to contaminated recreation waters by increasing the information available to the public and decision-makers.
- In 2002 Reduce exposure to contaminated recreation waters by increasing the information available to the public and decision-makers.
- In 2001 Reduce exposure to contaminated recreation waters by providing information on 2,354 beaches for which monitoring and closure data is available to the public and decision-makers.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Beaches for which monitoring and closure data is available to the public at http://www.epa.gov/OST/beaches/ . (cumulative)	2,354	2,354	2,450	Beaches
Number of eligible States that have started/completed development of monitoring and notification programs consistent with the BEACHES legislation.			15/5	States

Baseline: By the end of FY1999, 33 states had responded to EPA's first annual survey on state and local beach monitoring and closure practices, and EPA made available to the public via the Internet information on conditions at 1,403 specific beaches. In the upcoming 2000 Report to Congress on the National Water Quality Inventory, 72% of assessed river and stream miles; 77% of assessed lake, reservoir, and pond acres; and 85% of assessed estuarine square miles met their designated uses for recreation (primary contact).

Source Water Protection

- In 2003 39,000 community water systems (representing 75% of the nation's service population) will have completed source water assessments and 2,600 of these (representing 10% of the nation's service population) will be implementing source water protection programs.
- In 2002 Advance States' efforts to protect their surface and ground water resources that are sources of drinking water supplies.
- In 2001 States and community water systems increase efforts and programs to protect their source water resources, including ground water.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Population served by community water systems that are implementing efforts to protect their source water resources.				People
CWSs implementing efforts to protect their source water resources.	2,026			CWSs
Number of community water systems (CWSs) that have completed their source water assessments.		6,000		CWSs
Percent of population served by community water systems (CWSs) that have completed their source water assessments.		11		% Population
Number of community water systems (CWSs) that are implementing source water protection programs.		2,000		CWSs

Percent of population served by community water systems (CWSs) that are implementing source water protection programs.		4		% Population
Number of community water systems and percent of population served by those CWSs that have completed their source water assessments.			75%/39,000	Percent/systems
Number of community water systems and percent of population served by those CWSs that are implementing source water protection programs.			10%/2,600	% pop/systems

Baseline: EPA has defined implementation as undertaking 4 or more of 5 stages of source water protection. Nearly 264 million people are estimated to be served by CWSs in 2001.

Research

Drinking Water Research

- In 2003 The Office of Water will have data, methods, assessments, and technology evaluations necessary to make scientifically sound risk assessment and risk management decisions on unregulated drinking water contaminants of potential public health concern.
- In 2002 Produce reports on the assessment and control of risks associated with exposure to microbes and disinfection by-products (DBPs). This information will support scientifically sound regulatory decisions for microbes and DBPs, enhancing EPA's ability to protect drinking water supplies.
- In 2002 Produce scientific reports to support the development of the next Contaminant Candidate List of chemicals and pathogens for potential regulatory action and research. These reports will help ensure that future regulations address the contaminants of greatest public health concern.
- In 2001 EPA reduced uncertainties and improved methods associated with the assessment and control of risks posed by exposure to microbial contaminants in drinking water with a focus on the emerging pathogens on the CCL.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Report on occurrence of CCL-related pathogens in source and drinking water, such as mycobacterium and Aeromonas	1			report
Publish screening treatability studies for at least two microbes on the Candidate Contaminant List (CCL) to determine if these contaminants are effectively inactivated by conventional treatment.	2			studies
Assess risks from caliciviruses and Cryptosporidium as a function of dose and host susceptibility. Will aid in evaluating treatment approaches to prevent disease.		2		reports

Develop process-design recommendations for control of Cryptosporidium and DBPs in ozone/chloramine treated waters.		1	report
Produce a report on waterborne disease outbreaks in the U.S. in 1999-2000, which will provide information on causative agents, health effects, water quality and treatment issues.		1	report
Report on the occurrence of chemical by-products from alternative drinking water disinfection processes in water treatment systems.		1	report
Report on the potential health risks associated with three CCL microbial pathogens.			1 report
Provide method(s) for CCL related pathogens in drinking water for use in the Unregulated Contaminant Monitoring Rule.		1	journal article
Develop methodology to identify and characterize H. pylori, Cyclospora, caliciviruses and sources of human pathogens in water.			1 method
Publish a technical report on treatability of three chemicals in the 1998 Contaminant Candidate List to provide information to the program office for use in the regulatory determination.			1 report
Report on waterborne disease in the young and elderly in Washington State community intervention study.			1 report
Provide report on hazard and risk characterization issues for potentially susceptible subpopulations for chemicals on the Contaminant Candidate List			1 report

Baseline: The Safe Drinking Water Act Amendments of 1996 establish a process and timeline for EPA to make decisions about the regulation of waterborne pathogens and chemicals for which standards have not been previously established. The ability of EPA to identify potential candidates for regulation and to make scientifically sound regulatory decisions is dependent upon the availability of adequate information concerning the assessment and control of these contaminants. The current list of unregulated microbes and chemicals, called the Contaminant Candidate List (CCL), includes over 60 contaminants. The quality and robustness of the data base on health effects, exposure and treatability of these contaminants is highly variable. Some microorganisms on the CCL, for example, lack suitable analytical methods that are necessary for determining their viability and occurrence in drinking water samples. Basic information on the health effects of selected CCL chemicals are lacking, and the ability of conventional treatment technologies to remove or inactivate some of the contaminants has not been clearly established. Research conducted in support of this APG will provide new health effects and exposure data, analytical methods, risk assessments and technological evaluations on several high priority pathogens and chemicals. This will strengthen the scientific foundation for the next CCL and for future regulatory determinations on these contaminants.

Verification and Validation of Performance Measures

Performance Measure: Population served by community water systems with no violations during the year of any Federally-enforceable health-based standards that were in place by 1994 and Population served by community water systems that will receive drinking water meeting health-based standards promulgated in 1998.

Performance Database: Safe Drinking Water Information System (SDWIS or SDWIS-FED)

Data Source: States, Regions for Direct Implementation (DI) states

QA/QC Procedures: SDWIS has numerous edit checks built into the software to reject erroneous data. There are quality assurance manuals for states and Regions to follow to ensure data quality. EPA offers training to states on data entry and data retrieval, and also provides a troubleshooters guide and an error code database for states to use when they have questions on how to enter or correct data.

Data Quality Review: Quality assurance (QA) audits of the Office of Ground Water and Drinking Water's QA/QC processes, including those for SDWIS, are carried out every three years. This effort is coordinated by the QA division. EPA last completed a quality assurance audit in July 1999 and will complete a QA audit for 1999-2001 data in FY 2002. SDWIS was identified as an Agency weakness in the Fiscal Years 1999 and 2000 Federal Managers' Financial Integrity Report. The Data Reliability Action Plan (described below), developed and implemented to address corrective actions identified in 1999, for SDWIS was completed by the end of FY 2001. However, EPA/states/stakeholders have expanded on this Plan through the development of an Information Strategy. This strategy, which could be considered Phase II of the Data Reliability Action Plan, sets the direction for a comprehensive modernization of SDWIS over the next three to five years.

Data Limitations: Currently SDWIS is an "exceptions" database that focuses exclusively on public water systems' noncompliance with drinking water regulations (health-based and program). States implement drinking water regulations with the support of the Public Water System Supervision (PWSS) grant program. States with primacy determine whether public water systems have violated maximum contaminant levels (MCL), treatment technique requirements, consumer notification requirements, or monitoring-and-reporting requirements, and report those violations through SDWIS.

Recent state data verification and other quality assurance analyses indicate that the most significant data quality problem is under-reporting to EPA of both monitoring and reporting violations and incomplete inventory characteristics. Monitoring and reporting violations are not included in the health based violation category; however, failures to monitor could mask treatment technique and MCL violations. The incomplete inventory data limit EPA's ability to: 1) accurately quantify the number of sources and treatments applied, 2) undertake geo-spatial analysis, and 3) integrate and share data with other data systems.

New/Improved Data or Systems: Using a newly-developed information strategy developed by EPA in partnership with the states and major stakeholders, several improvements to SDWIS are underway.

First, EPA will continue to work with states to implement the Data Reliability Action Plan (DRAP), a multi-step approach to improve the quality and reliability of data in SDWIS. The DRAP already has improved the completeness, accuracy, and timeliness of the data in SDWIS through: 1) training courses for SDWIS data entry, error correction, and regulation-specific compliance determination and reporting requirements, 2) specific DRAP analyses, follow-up activities and state-specific technical assistance, and 3) web-enabling SDWIS-STATE for easier data entry by the states.

Second, more states will be using SDWIS-STATE, a software information system jointly designed by states and EPA, to support states as they implement the drinking water program. SDWIS-STATE is the counterpart to EPA's Federal drinking

water information system, SDWIS-FED, and employs the same edit criteria and enforces the same mandatory data elements. If the SDWIS-STATE system is fully utilized by a state, the information it holds meets EPA's minimum data requirements and can easily be reported to EPA, thereby eliminating data conversion errors and improving data quality and accuracy. In addition, a web-enabled version of SDWIS-STATE and a data migration application that can be used by all states to process data for upload to SDWIS-FED, are currently being developed. By the end of 2003, EPA estimates that 40 states will be using SDWIS-STATE for data collections.

Third, EPA is modifying SDWIS-FED to: 1) streamline its table structure, which simplifies updates and retrievals, 2) minimize data entry options that result in complex software and prevents meaningful edit criteria, and 3) enforce compliance with permitted values and Agency data standards through software edits, all of which will improve the accuracy of the data.

Finally, EPA, in partnership with the states, is developing information modules on other drinking water programs, e.g., source water protection, underground injection control, and the Drinking Water State Revolving Fund. These modules will be integrated with SDWIS to provide a more comprehensive data set with which to characterize the quality of the nation's drinking water supplies.

Performance Measure: Cumulative number of beaches for which monitoring and closure data is available to the public at <http://www.epa.gov/OST/beaches/> and number of eligible states that have started/completed development of monitoring and notification programs consistent with the BEACH Act of 2000.

Performance Database: National Health Protection Survey of Beaches Information Management System. The database includes fields identifying the beaches for which monitoring and notification information is available. The database also identifies those states that have received a BEACH Act grant. This information is updated annually.

Data Source: State and local governments

QA/QC Procedures: A standard survey form has been approved by OMB which is distributed by mail in hard copy and is available on the Internet for electronic submission. Where data is entered over the Internet, a password is issued to ensure the appropriate party is completing the survey. Those states receiving a BEACH Act grant are subject to the Agency's grant regulations at 40CFR 31.45 which require states and Tribes to develop and implement quality assurance practices for the collection of environmental information; these procedures will help assure data quality.

Data Quality Review: EPA reviews the survey responses to ensure the information is complete, then follows up with the state or local government to obtain additional information where needed. However, the Agency cannot verify the accuracy of the voluntary information state and local governments provide.

Data Limitations: Participation in this survey and collection of data is mostly voluntary. While the voluntary response rate has been high, it does not capture the complete universe of beaches. Participation in the survey will become a mandatory condition of grants awarded under the BEACH Act program (described below); however, state and local governments are not required to apply for a grant. Currently the Agency has data standards but procedures, methods, indicators, and thresholds can vary between jurisdictions because to date this has been a voluntary program. The Agency expects the limitations to diminish as more states apply for BEACH Act grants.

New/Improved Data or Systems: With the passage of the BEACH Act of 2000, the Agency is authorized to award grants to states to develop and implement monitoring and notification programs consistent with Federal requirements. As the Agency awards these grants, it will require standard program procedures, sampling and assessment methods, and data elements for reporting. To the extent that state governments apply for and receive these grants, the amount, quality, and consistency of available data will improve. In addition, the BEACH Act requires the Agency to maintain a database of national coastal recreation water pollution occurrences. The Agency will fulfill this requirement by revising the current

database to include this new information. In revising the database, the Agency will be investigating modes for electronic exchange of information and reducing the number of reporting requirements.

Performance Measure: Cumulative lake acres assessed for the need for fish advisories and compilation of state/Tribal-issued fish consumption advisory methodologies; Cumulative River miles assessed for the need for fish consumption advisories and compilation of state/Tribal-issued fish consumption advisory methodologies; states/Tribes monitoring and conducting assessments based on the national guidance to establish nationally consistent fish advisories.

Performance Database: National Listing of Fish and Wildlife Advisories. The database includes fields identifying the waters for which fish consumption advisories have been issued. The EPA Total Waters database is used to calculate sizes for fish advisories. This information is updated continually as states and Tribes issue or revise advisories. Data are also available describing methodologies used by states and Tribes for establishing advisories.

Data Source: State and Tribal governments

QA/QC Procedures: A standard survey has been approved by OMB which is available on the Internet for electronic submission. A password is issued to ensure the appropriate party is completing the survey. EPA has national guidance for states and Tribes to use for develop and implement quality assurance practices for the collection of environmental information for the purposes of establishing and managing fish advisories. This guidance helps assure data quality.

Data Quality Review: EPA reviews advisory entries and responses to the survey to ensure the information is complete, then follows up with the state or local government to obtain additional information where needed. However, the Agency cannot verify the accuracy of the voluntary information state and local governments provide.

Data Limitations: Participation in this survey and collection of data is voluntary. While the voluntary response rate has been high, it does not capture the complete universe of advisories.

New/Improved Data or Systems: A proposed enhancement to the system is the use of a GIS procedure to calculate the sizes of georeferenced advisories based on the National Hydrography Dataset (NHD). This procedure will provide size information for the vast majority of waterbody-specific advisories. In cases where the state has already provided information, the state's sizes will be retained rather than replaced with results from the NHD calculations.

Statutory Authorities

Safe Drinking Water Act
Clean Water Act
Toxic Substances Control Act

Research

Safe Drinking Water Act
Clean Water Act
Toxic Substances Control Act

Objective 2: Protect Watersheds and Aquatic Communities

By 2005, increase by 175 the number of watersheds where 80 percent or more of assessed waters meet water quality standards, including standards that support healthy aquatic communities. (The 1998 baseline is 501 watersheds out of a national total of 2,262.)

Key Program

(Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$1,558.8	\$0.0	\$0.0	\$0.0
Chesapeake Bay	\$20,728.0	\$20,568.7	\$20,650.8	\$82.1
Congressionally Mandated Projects	\$47,558.1	\$33,107.4	\$0.0	(\$33,107.4)
Ecosystems Condition, Protection and Restoration Research	\$36,006.0	\$37,785.0	\$38,592.9	\$807.9
Facilities Infrastructure and Operations	\$15,814.9	\$13,213.9	\$13,851.3	\$637.4
Great Lakes	\$3,114.4	\$2,671.0	\$2,684.7	\$13.7
Gulf of Mexico	\$4,341.2	\$4,261.6	\$4,327.4	\$65.8
Lake Champlain	\$1,995.6	\$954.8	\$954.8	\$0.0
Legal Services	\$3,019.0	\$3,462.8	\$3,755.0	\$292.2
Long Island Sound	\$4,989.0	\$2,500.0	\$477.4	(\$2,022.6)
Management Services and Stewardship	\$3,571.1	\$4,222.7	\$4,571.2	\$348.5
Marine Pollution	\$8,198.5	\$7,994.8	\$8,170.7	\$175.9
National Estuaries Program/Coastal Watersheds	\$20,151.9	\$24,521.3	\$19,246.2	(\$5,275.1)

Pacific Northwest	\$1,078.6	\$1,003.8	\$1,028.5	\$24.7
Regional Management	\$370.2	\$429.0	\$450.5	\$21.5
South Florida/Everglades	\$2,942.0	\$2,648.3	\$2,665.5	\$17.2
State Pollution Control Grants (Section 106)	\$169,887.7	\$192,476.9	\$180,376.9	(\$12,100.0)
State Water Quality Cooperative Agreements	\$18,958.2	\$18,958.2	\$38,958.2	\$20,000.0
State Wetlands Program Grants	\$14,967.0	\$14,967.0	\$14,967.0	\$0.0
TMDLs	\$20,594.5	\$21,232.1	\$21,433.2	\$201.1
Water Quality Criteria and Standards	\$19,515.2	\$18,782.4	\$19,127.2	\$344.8
Water Quality Monitoring and Assessment	\$11,811.0	\$11,665.1	\$11,967.7	\$302.6
Watershed Assistance	\$8,467.8	\$7,821.6	\$9,479.1	\$1,657.5
Wetlands	\$17,651.0	\$17,829.8	\$18,381.9	\$552.1

Annual Performance Goals and Measures

Assessments of Designated Uses

In 2003 Assess, restore and protect watersheds.

In 2002 Assess, restore and protect watersheds.

In 2001 Assessed 132.1 river miles/lake acres, and 6,057 square estuary square miles that have water quality supporting designated uses, where applicable, for drinking water supply.

In 2001 Continued to restore and protect watersheds through implementation of over 2,300 TMDLs.

Performance Measures:

Assessed river miles/lake acres/estuary square miles that have water quality supporting designated beneficial uses, where applicable, for drinking water supply.

FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
132K/6M	no target	no target	Mi/Acres

Assessed river miles, lake acres, and estuary square miles that have water quality supporting designated beneficial uses, where applicable, for fish and shellfish consumption.	174K/5M/7 K	no target	no target	Mi/Acres/Sq Mi
Assessed river miles, lake acres, and estuary square miles that have water quality supporting designated beneficial uses, where applicable, for recreation.	269K/10M/1 8K	no target	no target	Mi/Acres/Sq Mi
TMDLs established by EPA. (cumulative)	870	930	1,245	TMDLs
TMDLs scheduled to be completed by the end of 2001. (cumulative)	3,826			TMDLs
Impaired, assessed river miles, lake acres, & estuary square miles that a) are covered under WRAS and b) were restored to their designated uses during the reporting period.				
Assessed river miles, lake acres, and estuary square miles that have water quality supporting designated beneficial uses, where applicable, for aquatic life support.	406K/9M/11 K	no target	no target	Mi/Acres/Sq Mi
TMDLs submitted by the state. (cumulative)	2,882			TMDLs
State-established TMDLs approved. (cumulative)	2,872	6,000	9,200	TMDLs

Baseline: From the upcoming 2000 Report to Congress on the National Water Quality Inventory, the miles/aces quantities reported in the FY 2001 column translate into the following percentages of waters: 66% of assessed river and stream miles; 73% of assessed lake, reservoir, and pond acres; and 49% of assessed estuary square miles have water quality supporting designated beneficial uses for aquatic life support. Likewise 69% of assessed river and stream miles, 63% of assessed lake, reservoir and pond acres, and 53% of assessed estuary square miles have water quality supporting their designated use for fish consumption. 86% of assessed river and stream miles and 83% of lake, reservoir and pond acres support their designated use for drinking water supply.

Watershed Protection

In 2003	By FY 2003, Water quality will improve on a watershed basis such that 600 of the Nation's 2,262 watersheds will have greater than 80 percent of assessed waters meeting all water quality standards, up from 500 watersheds in 1998.
In 2002	By FY 2003, Water quality will improve on a watershed basis such that 600 of the Nation's 2,262 watersheds will have greater than 80 percent of assessed waters meeting all water quality standards, up from 500 watersheds in 1998.
In 2001	Water quality improved on a watershed basis such that 510 of the Nation's 2,262 watersheds will have greater than 80 percent of assessed waters meeting all water quality standards, up from 500 watersheds in 1998.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Watersheds that have greater than 80% of assessed waters meeting all water quality standards.	510	600 (FY 03)	600	8-digit HUCs

Baseline: As of 1998 state reports, 500 watershed had met the criteria for water quality improving on a watershed basis. For a watershed to be counted toward this goal, at least 25% of the segments in the watershed must be assessed within the past 4 years consistent with assessment guidelines developed pursuant to section 305(b) of the Clean Water Act.

State/Tribal Water Quality Standards

In 2003	36 Percent of Tribes will have water quality monitoring and assessment programs appropriate for their circumstances and will be entering water quality data into EPA's national data systems.
In 2003	Assure that States and Tribes have effective, up-to-date water quality standards programs adopted in accordance with the Water Quality Standards regulation and the Water Quality Standards program priorities.
In 2002	30 Percent of Tribes will have water quality monitoring and assessment programs appropriate for their circumstances and will be entering water quality data into EPA's national data systems.
In 2002	Assure that States and Tribes have effective, up-to-date water quality standards programs adopted in accordance with the Water Quality Standards regulation and the Water Quality Standards program priorities.
In 2001	21 States and 19 Tribes have effective, up-to-date water quality standards programs adopted in accordance with the Water Quality Standards regulation and the Water Quality Standards program priorities.
In 2001	22% of Tribes have water quality monitoring and assessment programs appropriate for their circumstances and will be entering water quality data into EPA's national data systems

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Tribes with monitoring and assessment programs. (cumulative)	22	30	36	% Tribes
Pilot STORET/305(b) reporting projects with Tribes.	2			Pilot projects
States with new or revised water quality standards that EPA has reviewed and approved or disapproved and promulgated federal replacement standards.	21	20	20	States
States and tribes with approved E. coli or enterococci criteria.		40	55	States
Tribes with water quality standards adopted and approved (cumulative).	19	27	30	Tribes

Baseline: In 1999, less than 5% of tribes had water quality monitoring and assessment programs appropriate for their circumstances and were entering water quality data into EPA's national data systems. State water quality standards program reviews are under a 3-year cycle as mandated by the Clean Water Act under which all states maintain updated water quality programs. The performance measure of state submissions (above) thus represents a "rolling annual total" of updated standards acted upon by EPA, and so are neither cumulative nor strictly incremental. EPA must review and approve or disapprove state revisions to water quality standards within 60-90 days after receiving the state's package. As of this May EPA was overdue in approving or disapproving 38 new or revised standards from 21 states and tribes.

Protecting and Enhancing Estuaries

- In 2003 Restore and protect estuaries through the implementation of Comprehensive Conservation and Management Plans (CCMPs).
- In 2002 Restore and protect estuaries through the implementation of Comprehensive Conservation and Management Plans (CCMPs).
- In 2001 Restored and protected 70,000 acres of estuaries through the implementation of Comprehensive Conservation and Management Plans (CCMPs).

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Priority actions or commitments initiated nationwide as part of the National Estuary Program since approval of the first CCMP in 1991. (cumulative)	83			Actions
Acres of habitat restored and protected nationwide as part of the National Estuary Program. (annual)	70,000	50,000	25,000	Acres

Baseline: As of January 2000, it is estimated that 65% of priority actions initiated and 400,000 habitat acres preserved, restored, and/or created.

Gulf of Mexico

- In 2003 Assist the Gulf States in implementing watershed restoration actions in 14 priority impaired coastal river and estuary segments.
- In 2003 Support projects with the goal of creating, restoring, or protecting 2400 acres of important coastal and marine habitats per year (incremental).
- In 2002 Assist the Gulf States in implementing watershed restoration action strategies (WRAS) or their equivalent in 37 priority coastal river and estuary segments.
- In 2002 Support projects with the goal of creating, restoring, or protecting over 2,400 acres of important coastal and marine habitats per year.
- In 2001 Assisted the Gulf States in implementing watershed restoration action strategies (WRAS) or their equivalent in 37 priority coastal river and estuary segments.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Impaired Gulf coastal river and estuary segments implementing watershed restoration actions (incremental).	37	37	14	Segments
TMDLs (1) scheduled to be completed; (2) submitted by Gulf States for segments in the coastal watershed; and (3) established by EPA and; (4) Gulf State established TMDLs approved.	79 / 851 / 32			TMDLs
Assessed river miles, lake acres, and estuary square miles that a) are covered under WRAS and b) were restored to their designated uses during the reporting period.				Miles, etc.
Increase acreage and restore or protect coastal and marine habitats by 2009 (incremental).		2,400	2,400	Acres

Baseline: There are currently 95 coastal watersheds at the 8-digit hydrologic unit code (HUC) scale on the Gulf coast. The Gulf of Mexico Program has identified 12 priority coastal areas for assistance. These 12 areas include 30 of the 95 coastal watersheds. Within the 30 priority watersheds, the Gulf States have identified 354 segments that are impaired and not meeting full designated uses under the States' water quality standards. 71 or 20% is the target proposed to reinforce Gulf State efforts to implement 5-year basin rotation schedules. The target of 71 is divided by 5 to achieve the goal for assistance provided in at least 14 impaired segments each year for the next 5 years.

Wetland and River Corridor Projects

In 2003	Support wetlands and stream corridor restoration and management and assessment/monitoring of overall wetland health.
In 2002	Support wetlands and stream corridor restoration and management and assessment/monitoring of overall wetland health.
In 2001	Supported 108 wetlands and stream corridor restoration and management projects and continued our efforts assessment/monitoring of overall wetland health.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Watershed-based wetland restoration projects to which EPA has provided financial support (other than 5-Star Projects) and/or has contributed significant technical assistance. (cumulative)	108			Projects
States/tribes developing formal programs and wetlands assessment capacities, aimed toward measuring wetland gain, loss and/or deterioration.	0	4		States/Tribes

Watershed-based wetlands restoration projects to which EPA has provided financial assistance (including 5-Star projects) and/or has contributed significant technical assistance. (cumulative)

550 Projects

Baseline: Going into FY99, 11 states/tribes had met the criteria for establishing formal assessment/monitoring programs.

Chesapeake Bay Habitat

In 2003 Improve habitat in the Chesapeake Bay.

In 2002 Improve habitat in the Chesapeake Bay.

In 2001 Improved habitat in the Chesapeake Bay by reducing 48.1 million pounds of nitrogen, 6.84 million pounds of phosphorous and restored over 69,000 acres of submerged aquatic vegetation.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Pounds reduction, from 1985 levels, of nitrogen and phosphorus loads entering Chesapeake Bay. (cumulative)	48.1 / 6.84 M	77/8.4 million		Pounds
Miles of streambank and shoreline restored with riparian forest buffers. (cumulative)	711		896	Miles
Wastewater flow to the Chesapeake Bay treated by biological nutrient removal. (cumulative)	47	53	58	% WW flow
Percent shallow waters that meet water clarity requirements for submerged aquatic vegetation.			15	% waters
Acres of submerged aquatic vegetation (SAV) present in the Chesapeake Bay. (cumulative)	69,126	78,000	80,000	Acres
Stream miles of migratory fish habitat reopened through provision of fish passages. (cumulative)	816	1,243	1,243	Miles

Baseline: In 1985, 0% of wastewater flow had been treated by Biological Nutrient Removal. In 1989, 49 miles of migratory fish habitat was reopened. In 1984, there were 37,000 acres of submerged aquatic vegetation in the Chesapeake Bay. In 1988, voluntary IPM practices had been established on 2% of the lands in the Chesapeake Bay watershed.

Tribal Environmental Water Presence

In 2003 70 Percent of Tribes will have a "water program environmental presence" (i.e., one or more persons, as appropriate, with environmental capability to advise Tribal governments on developing and implementing programs).

In 2002 60 Percent of Tribes will have a "water program environmental presence" (i.e., one or more persons, as appropriate, with environmental capability to advise Tribal governments on developing and implementing programs).

In 2001 47% of Tribes have a "water program environmental presence" (i.e., one or more persons, as appropriate, with environmental capability to advise Tribal governments on developing and implementing programs).

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Tribes with a water program presence. (cumulative)	47	60	70	% Tribes

Baseline: As of 1999, approximately 20% of Tribes have a "water program environmental presence."

Research

Scientific Rationale for Surface Water Criteria

- In 2003 Provide the science and data management scheme for the 303(d) listing process to include classification systems for surface waters, watersheds, and regions so that states will have an improved and reliable means of identifying impaired water bodies.
- In 2003 Provide updated models for stormwater management, and for allocating suspended solids and sediment loads, and related uncertainties for mixed land use watersheds so that state and local resource managers can make improved scientifically-based decisions that protect aquatic resources and human health
- In 2002 Provide a method for setting risk-based aquatic life criteria for toxic chemicals which minimizes uncertainties of translating national and site-specific water quality criteria.
- In 2001 Developed (and published jointly as part of Office of Water guidance) the framework for diagnosing adverse chemical pollutants in surface waters.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Complete Clinch and Powell Watershed Risk Assessment.	0			assessment
Complete and publish a compendium of case studies illustrating the application of the Stressor Identification Guidelines.	1			compendium
Decision-support tools and guidance for watershed scale assessments; report on risk characterization for watersheds.	30-Sep-2001			
Report on Sediment Toxicity.	0			report
Final report (including model and database) comparing and analyzing the quantitative dose-response relationships of aquatic and aquatic-associated wildlife and dioxin-like PBTs.		1		report
Classification frameworks for geographic regions and at the watershed, water body, and habitat scale.			1	report

Prepare a document for use by states to assist in modeling risk management options and restoration measures in waterbodies impaired due to suspended solids and sediment.

1 document

Complete report on selected methods for integrating ecological risk assessment and economics to support watershed decision-marking.

1 report

Baseline: The State and EPA implementation of processes to identify impaired waters and restore them via a wide array of programs, including the TMDL process, requires assessment of waters and listing them as impaired. Recent Congressionally directed National Academy of Sciences studies note that the Agency's approach to listing impaired waters (the 3030(d) process) is not complete (i.e., a substantial quantity of the Nation's waters remain un-assessed) and is not scientifically robust (it appears that some listed waters may be inappropriately identified or mis-characterized). Accordingly, ORD has embarked on a focused research program to develop the monitoring, diagnostic, and classification schemes to improve the Agency and State approaches to this listing process. While this is a national requirement, regional and watershed, as well as biological, differences must be factored into the process.

The States and other reporting and assessment entities have listed sediments as a major cause of water body and watershed impairment. Urban storm water has also been identified as a major source of impairment. In addition the National Academy of Science report on TMDLs has called for the increasing characterization and use of uncertainty in modeling for TMDLs. In the case of storm water management, TMDL guidance may require permits for storm water and hence the urgent need to both improve the science of modeling such systems and the additional need to include uncertainty analysis techniques as part of the modeling process. Accordingly, ORD's research has been directed to provide updates in the modeling capability for this important national problem and to increase the capability of modelers and TMDL analysts to provide more robust and cost-effective outcomes for water bodies impaired by sediments.

Verification and Validation of Performance Measures

Performance Measure: Acres of habitat restored and protected nationwide since 1987 as part of the National Estuary Program (NEP).

Performance Database: A simple database/tracking system is being developed to document the number of acres of habitat restored and protected. Key fields will include the type of action (e.g. protection or restoration) and habitat type (e.g. estuarine, riparian).

Data Source: NEP Program documents such as annual work plans (which contain achievements made in the previous year) and annual progress reports are used along with other implementation tracking materials to document the number of acres of habitat restored and protected. EPA then aggregates the data provided by each NEP to arrive at a national total for the entire Program.

QA/QC Procedures: Primary data is prepared by the staff of the NEP based on their own reports and from data supplied by other partnering agencies/organizations (that are responsible for implementing the action resulting in habitat protection and restoration). Aggregate data is compiled through a contractor review of the NEP documentation. The NEP staff are requested to follow guidance provided by EPA to prepare their reports, and to verify the numbers they provided. EPA and a contractor then confirm that the national total accurately reflects the information submitted by each program.

Data Quality Review: This is a new Annual Performance Measure which is still being refined. No audits or quality reviews conducted yet.

Data Limitations: It is still early to determine the full extent of data limitations. Current data limitations include: information that may be reported inconsistently (based on different interpretations of the protection and restoration definitions), acreage that may be miscalculated or misreported, and acreage that may be double counted (same parcel may also be counted by partnering/implementing agency or need to be replanted multiple years). In addition, measuring the number of acres of habitat may not directly correlate to improvements in the health of the habitat reported, but is rather a measure of on-the-ground progress made by the NEPs.

New/Improved Data or Systems: The Office of Wetlands Oceans and Watersheds has developed a standardized format for data reporting and compilation. In addition to providing the reporting matrix, habitat protection and restoration activities were defined, and habitat categories specified to assist in providing consistency of reporting. We have also designed a web page that highlights habitat loss/alteration in an educational fashion with graphics and images which reflect specific NEP reports (does not illustrate aggregate data at the national level). This will enable EPA to provide a visual means of communicating NEP performance and habitat protection and restoration progress to a wide range of stakeholders and decision-makers. In the future, we will examine the possibility of geo-referencing the data in a geographic information system (GIS).

Performance Measure: Watersheds that have greater than 80% of assessed waters meeting all water quality standards.

Performance Database: The Watershed Assessment Tracking Environmental Results System (WATERS) is used to summarize water quality information at the watershed level. For purposes of this national summary, "watersheds" are equivalent to 8-digit hydrologic unit codes (HUCs), of which there are 2,262 nationwide. State CWA 305(b) data is submitted every two years and many states provide annual updates. Data to be used for the FY 2003 Annual Performance Report will include state submissions expected in the spring of 2002.

Data Source: State CWA 305(b) reporting. The data used by the states to assess water quality and prepare its 305(b) report include ambient monitoring results from multiple sources (state, USGS, volunteer, academic) as well as predictive tools like water quality models. Because states compile diverse data to support water quality assessments, EPA uses this data to present a snap-shot of water quality as reported by the states, but does not use it to report trends in water quality. EPA's Office of Water and Office of Research and Development has established a monitoring and design team that is working with states on a 3 to 5-year project to recommend a design for a national probability-based monitoring network that could be used to provide both status and trends in water quality at a state and national level.

QA/QC Procedures: QA/QC of data provided by states pursuant to individual state assessments (under 305(b)) is dependent on individual state procedures. Numerous system level checks are built into WATERS based upon the business rules associated with assessment information. States are then given the opportunity to review the information in WATERS to ensure it accurately reflects the data that they submitted. Detailed data exchange guidance and training are also provided to the states. Sufficiency threshold for inclusion in this measure requires that 20% of stream miles in an 8-digit HUC be assessed.

Data Quality Review: Numerous independent reports have cited that weaknesses in monitoring programs and the reporting of monitoring data undermine EPA's ability to depict the condition of the nation's waters and to support scientifically-sound water program decisions. The most recent reports include the 1998 *Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program*, the March 15, 2000 General Accounting Office report *Water Quality: Key Decisions Limited by Inconsistent and Incomplete Data*, and the 2001 National Academy of Sciences Report *Assessing the TMDL Approach to Water Quality Management*.

In response to these evaluations, EPA has been working with states and other stakeholders to improve 1) data coverage, so that state reports reflect the condition of all waters of the state; 2) data consistency to facilitate comparison and aggregation of state data to the national level; and 3) documentation so that data limitations and discrepancies are fully understood by data users. First, EPA enhanced two existing data management tools (STORET and the Assessment Database) that include documentation of data quality information. Second, EPA has developed a GIS tool called

WATERS that integrates many databases including STORET, the Assessment database, and a new water quality standards database. These integrated databases facilitate comparison and understanding of differences among state standards, monitoring activities, and assessment results. Third, EPA and states have developed a guidance document *Consolidated Assessment and Listing Methodology - a Compendium of Best Practices* intended to facilitate increased consistency in monitoring program design and the data and decision criteria used to support water quality assessments.

Data Limitations: Data are not representative of comprehensive national assessments since states do not yet employ a monitoring design that characterizes all waters in each reporting cycle. States do not use a consistent suite of water quality indicators to assess attainment with water quality standards. For example, indicators of aquatic life use support range from biological community assessments to levels of dissolved oxygen to concentrations of toxic pollutants. State assessments of water quality may include uncertainties associated with derived or modeled data. Differences in monitoring designs among and within states prevent the agency from aggregating water quality assessments at the national level with known statistical confidence.

New/Improved Data or Systems: The Office of Water is currently working with states, Tribes and other Federal agencies to improve the database that supports this management measure by addressing the underlying methods of monitoring water quality and assessing the data. Also, the Office of Water is working with partners to enhance monitoring networks to achieve comprehensive coverage of all waters, use a consistent suite of core water quality indicators (supplemented with additional indicators for specific water quality questions), and document key data elements and decision criteria through electronic data systems and assessment methodologies. The Office of Water is using a variety of mechanisms to implement these improvements including data management systems, guidance, stakeholder meetings, training and technical assistance, program reviews and negotiations.

Performance Measure: States with new or revised water quality standards that EPA has reviewed and approved or disapproved, and promulgated Federal replacement standards.

Performance Database: No formal database exists to track EPA approval/disapproval actions on new and revised state water quality standards, although such a database is currently being designed..

There is, however, an Assessment Database which tracks the water quality standard attainment status of the nation's surface waters. The new WATERS database is a GIS tool which maps this information. Please see discussion under "Watersheds that have greater than 80% of assessed waters meeting all water quality standards" for discussion of the WQS information mapped in WATERS.

Data Source: Regional reporting

QA/QC Procedures: Headquarters is responsible for compiling the data, and querying Regions as needed. Regions are responsible for collecting the data from their client states and reporting the data to HQ once yearly.

Data Quality Review: EPA Headquarters and Regions annually review the WQS data submitted by states.

Data Limitations: N/A

New/Improved Data or Systems: N/A

Performance Measure: Cumulative number of Tribes with water quality standards adopted and approved.

Performance Database: No formal database exists.

Data Source: Regional reporting

QA/QC Procedures: Headquarters is responsible for compiling the data, and querying Regions as needed. Regions are responsible for collecting the data from their client Tribes and reporting the data to HQ once yearly.

Data Quality Review: EPA Headquarters and Regions annually review the data submitted by Tribes.

Statutory Authorities

Clean Water Act (CWA)
Safe Drinking Water Act (SDWA)
Marine Protection, Research and Sanctuaries Act (MPRSA)
Ocean Dumping Ban Act of 1988
Shore Protection Act of 1988
Clean Vessel Act
Water Resource Development Act (WRDA)
Marine Plastic Pollution, Research and Control Act (MPPRCA) of 1987
National Invasive Species Act of 1996
Coastal Wetlands Planning, Protection, and Restoration Act of 1990
North American Wetlands Conservation Act
Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)
Toxic Substances Control Act (TSCA)
Resource Conservation and Recovery Act (RCRA)
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
Clean Air Act Amendments (CAA)
Pollution Prevention Act (PPA)
Estuaries and Clean Waters Act of 2000

Research

Clean Water Act (CWA)
Safe Drinking Water Act (SDWA)
Marine Protection, Research and Sanctuaries Act (MPRSA)
Ocean Dumping Ban Act of 1988
Shore Protection Act of 1988
Clean Vessel Act
Water Resource Development Act (WRDA)
Marine Plastic Pollution, Research and Control Act (MPPRCA) of 1987
National Invasive Species Act of 1996
Coastal Wetlands Planning, Protection, and Restoration Act of 1990
North American Wetlands Conservation Act
Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)
Toxic Substances Control Act (TSCA)
Endangered Species Act

Objective 3: Reduce Loadings and Air Deposition

By 2005, reduce pollutant loadings from key point and nonpoint sources by at least 11 percent from 1992 levels. Air deposition of key pollutants will be reduced to 1990 levels.

Key Program

(Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$1,509.8	\$0.0	\$0.0	\$0.0
Congressionally Mandated Projects	\$256,867.2	\$241,582.9	\$0.0	(\$241,582.9)
Disadvantaged Communities	\$4,309.6	\$4,350.8	\$4,481.3	\$130.5
EMPACT	\$100.1	\$0.0	\$0.0	\$0.0
Effluent Guidelines	\$23,354.1	\$22,773.4	\$23,010.3	\$236.9
Facilities Infrastructure and Operations	\$11,354.5	\$11,335.7	\$11,869.4	\$533.7
Homeland Security	\$0.0	\$1,500.0	\$0.0	(\$1,500.0)
Lake Champlain	\$0.0	\$1,545.2	\$0.0	(\$1,545.2)
Legal Services	\$2,714.3	\$2,923.1	\$3,170.7	\$247.6
Management Services and Stewardship	\$3,654.4	\$5,710.6	\$6,192.8	\$482.2
NPDES Program	\$40,961.5	\$40,991.0	\$41,720.8	\$729.8
National Nonpoint Source Program Implementation	\$16,644.6	\$16,488.6	\$16,908.6	\$420.0
Recreational Water and Wet Weather Flows Research	\$5,926.4	\$5,635.8	\$5,496.6	(\$139.2)
Regional Management	\$402.7	\$494.2	\$490.7	(\$3.5)
State Nonpoint Source Grants	\$237,476.8	\$237,476.8	\$238,476. 8	\$1,000.0

Wastewater Management/Tech Innovations	\$9,055.0	\$8,840.1	\$9,073.7	\$233.6
Water Infrastructure: Alaska Native Villages	\$34,923.0	\$40,000.0	\$40,000.0	\$0.0
Water Infrastructure:Bristol County	\$1,935.7	\$0.0	\$0.0	\$0.0
Water Infrastructure:Clean Water State Revolving Fund (CW-SRF)	\$1,347,030.0	\$1,350,000.0	\$1,212,000.0	(\$138,000.0)
Water Quality Infrastructure Protection	\$16,704.3	\$16,783.7	\$17,239.3	\$455.6

Annual Performance Goals and Measures

Reducing Industrial Pollutant Discharge

- In 2002 Industrial discharges of pollutants to the nation's waters will be significantly reduced through implementation of effluent guidelines.
- In 2001 Millions of pounds of industrial discharges of pollutants to the nation's waters were significantly eliminated through implementation of effluent guidelines.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Reduction in loadings for toxic pollutants for facilities subject to effluent guidelines promulgated between 1992 & 2000, as compared to 1992 levels as predicted by model projections. (cumulative)	10.3	10.5 million		Pounds
Reduction in loadings for conventional pollutants for facilities subject to effluent guidelines promulgated between 1992 & 2000, as compared to 1992 levels as predicted by model projections. (cum)	557.0	572 million		Pounds
Reduction in loadings for non-conventional pollutants for facilities subject to effluent guidelines promulgated between 1992 & 2000, as compared to 1992 levels as predicted by model projections. (cum)	922.0	1,007 million		Pounds

Baseline: Loading reduction estimates are based on model projections from effluent guidelines promulgated between 1992 and 1999, with both the numbers of affected facilities and permits estimated. Flow data is not available for some point sources in PCS.

NPDES Permit Requirements

- In 2003 Current NPDES permits reduce or eliminate loadings into the nation's waters of (1) inadequately treated discharges from municipal and industrial facilities (direct and indirect dischargers); and (2) pollutants from urban storm water, CSOs, and CAFOs.
- In 2002 Current NPDES permits reduce or eliminate discharges into the nation's waters of (1) inadequately treated discharges from municipal and industrial facilities; and (2) pollutants from urban storm water, CSOs, and CAFOs.
- In 2001 Maintaining current NPDES permits aid in the reduction or elimination of discharges into the nation's waters of inadequately treated discharges from municipal and industrial facilities; and pollutants from urban storm water, CSOs, and CAFOs.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Major point sources are covered by current permits.	75	90%	90%	Point Sources
States with current storm water permits for construction sites over 5 acres.	91			% States
States with general NPDES permits for CAFOs > 1,000 animal units or with individual NPDES permits for all CAFOs > 1,000 animal units consistent with the AFO Strategy and guidance.	59			% States
Permittees (among the approximately 900 CSO communities nationwide) that are covered by NPDES permits or other enforceable mechanisms consistent with the 1994 CSO policy.	87			% permittees
States with current general NPDES permits for CAFOs or with individual NPDES permits for all CAFOs.		100		% States
Comprehensive methodology tested for documenting pollutants removed through increased SSO, CSO and storm water treatment, and increased wastewater treatment to secondary or better standards.		1		Methodology
Minor point sources are covered by current permits.	75	73%	84%	Point Sources
States with current storm water permits for all industrial activities operating in the state.	92			% States
Loading reductions (pounds per year) of toxic, non-conventional, and conventional pollutants from NPDES permitted facilities (POTWs, Industries, SIUs, CAFOs, SW, CSOs).			500 million	pounds
Pounds of pollutants prevented from being discharged into waters due to field technical assistance at 775 municipal wastewater treatment plants.			12,000	pounds

Permits on 303(d) listed waterbodies which implement EPA approved TMDLs.				90	% permits
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Baseline: As of May 1999, 72% of major point sources and 54% of minor point sources were covered by a current NPDES permit. At the end of FY99, 53 of 57 states/territories had current storm water permits for all industrial activities, and 50 of 57 had current permits for construction sites over 5 acres. In June 1999, 74% of approximately 900 CSO communities were covered by permits or other enforceable mechanisms consistent with the 1994 CSO Policy. As of December 1999, approximately 14 states had current NPDES general permits for CAFOs and at least another 13 had issued one or more individual NPDES permits for CAFOs.

Construction Grant and Special Project Closeout

In 2003	Reduce point source loadings by closing out within 7 years projects funded under Clean Water Act Title II (construction grants) awarded after FY 91 and Special Project Stag Grants.
In 2002	Reduce point source loadings by expediting completion of projects funded under Clean Water Act Title II (construction grants) and special project STAG grants.
In 2001	Reduced point source loadings by expediting completion of 37 projects funded under Clean Water Act Title II (construction grants) and special project STAG grants.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Construction grants projects awarded after FY91 closed out within 7 years of grant award.	79	90		% grants
Construction grants projects awarded before FY92 remaining to be closed out.	138	13		Projects
Percentage of Construction Grants and Special Project Grants closed out within 7 years of award.			90	% grants
Special project STAG grants closed out within 7 years of grant award.	78	90		% Grants

Baseline: As of September 1998, 439 construction grants projects remained to be closed out, according to biannual reports from the Regions. As of September 1998, three special project STAG grants had been closed out according to biannual reports submitted by the EPA Regions to EPA Headquarters. Special project STAG grants were first established in 1994.

Effluent Guidelines

In 2003	Develop effluent guidelines that when implemented are expected to reduce pollutant loadings into surface waters.
In 2003	Develop regulations for cooling water intakes that when implemented are expected to reduce harm to aquatic life.
In 2002	Take final action on 1 and propose 1 rule to reduce the damage to the aquatic environment caused by cooling water intakes.

- In 2002 Take final action on 2 and propose 3 effluent guidelines limitations for industrial categories that contribute significantly to pollution of surface waters.
- In 2001 Took final action on 1 and proposed 4 effluent guidelines limitations for industrial categories that contribute significantly to pollution of surface waters.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Number of effluent guidelines proposed or promulgated.	4 / 1	3/2		Rules
Number of cooling water intake (316(b)) regulations proposed or promulgated.		1/1	1/1	Rules
At least 150 million pounds of pollutants eliminated from waters of the U.S. as a result of two final effluent guidelines.			150	million pounds

Baseline: Loading reduction estimates are based on model projections from the effluent guidelines, with both the numbers of affected facilities and permits estimated.

Clean Water State Revolving Fund: Annual Assistance

- In 2003 900 projects funded by the Clean Water SRF will initiate operations, including 515 projects providing secondary treatment, advanced treatment, CSO correction (treatment), and/or storm water treatment. Cumulatively, 8,800 projects will have initiated operations since program inception.
- In 2003 Reduce point and nonpoint source loadings by managing the \$34 billion in CWSRF assets to encourage use of state funds for state high-priority projects.
- In 2002 700 projects funded by the Clean Water SRF will initiate operations, including 400 projects providing secondary treatment, advanced treatment, CSO correction (treatment), and/or storm water treatment. Cumulatively, 7,900 projects will have initiated operations since program inception.
- In 2002 Reduce point and nonpoint source loadings by managing the \$30 billion in CWSRF assets to encourage use of state funds for state high-priority projects.
- In 2001 933 projects funded by the Clean Water SRF initiated operations, including 400 projects providing secondary treatment, advanced treatment, CSO correction (treatment), and/or storm water treatment. Cumulatively, 7,452 SRF funded projects will have initiated operations since program inception.
- In 2001 Reduce point and nonpoint source loadings by managing the \$30 billion in CWSRF assets to encourage use of state funds for state high-priority projects.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
CW SRF projects that have initiated operations. (cumulative)	7,452	7,900	8,800	SRF projects

States that are using integrated planning and priority systems to make CW SRF funding decisions. (cumulative)	16	18	20	States
States that meet or exceed "pace of the program" measures for loan issuance and construction (cumulative).	24			States
States and Puerto Rico that conduct separate annual audits of their CW SRFs	42			States
National CWSRF Federal Return on Investment, as measured by cumulative assistance disbursed divided by cumulative federal outlays. (Base of \$1.73 in 1999)		\$1.90		Ratio
National CWSRF loans as a percentage of funds available, as measured by the ratio of cumulative loan agreement dollars to the cumulative funds available for loans. (base of 87.5% in 1999)		90 %	90 %	Ratio
EPA will report to Congress on the pace of the Clean Water State Revolving Fund Program.	1			Report

Baseline: The Agency's National Information Management System (NIMS) shows, as of July 1998, 39 states/territories were conducting separate annual audits of their SRFs and utilizing fund management principles. NIMS shows, as of June 1998, 25 states were meeting the "pace of the program" measures for loan issuance, pace of construction, and use of repayments. As of September 1998, 8 states were using integrated planning and priority systems to make SFR funding decisions. NIMS shows 3,909 SRF projects initiated as of June 1998.

Improving Wastewater Sanitation in Indian Country

- In 2003 Increase protection of human health in Indian Country by providing adequate wastewater sanitation to more of the 71,028 homes in Indian Country with inadequate wastewater sanitation systems.
- In 2002 Increase protection of human health in Indian Country by providing adequate wastewater sanitation to more of the 71,028 homes in Indian Country with inadequate wastewater sanitation systems.
- In 2001 Increased protection of human health in Indian Country by providing adequate wastewater sanitation to over 10,000 homes in Indian Country with inadequate wastewater sanitation systems.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Percent of homes in Indian Country whose residents are provided with adequate wastewater sanitation systems though funding from the CW SRF Tribal Set Aside Program. (cumulative)	14	19	26	% Homes

Baseline: Annual reporting established in FY 1998 by EPA and the Indian Health Service shows 71,028 homes in Indian Country without adequate treatment.

Wastewater Treatment Facility Compliance

- In 2003 Enhance public health and environmental protection by securing the nation's critical wastewater infrastructure through support for homeland security preparedness, including vulnerability assessments, emergency operations planning, and system operator training.
- In 2002 Protect human health and avoid increased point source loadings by helping the approximately 17,000 small U.S. wastewater treatment systems to maintain permitted performance levels.
- In 2001 Protected human health and avoided increased point source loadings by permitting over 750 wastewater treatment systems to maintain permitted performance levels.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
Wastewater treatment facilities maintaining permitted performance levels through assistance under Section 104(g) of the CWA.	776	780		Facilities
Percent of the population served by, and the number of, large and medium-sized (10,001 and larger) Publicly Owned Treatment Works (POTWs) that have taken action for homeland security preparedness.			65%/5000	%pop/systems

Baseline: In 1998, 890 facilities were assisted to improve, maintain, or achieve compliance.

Wastewater Treatment

- In 2003 Reduce human health risks and nonpoint source loadings from the approximately 11 million failing septic systems that pollute drinking water supplies, playgrounds and beaches, back up into homes and damage shellfish and other aquatic life.
- In 2002 Reduce human health risks and nonpoint source loadings from the approximately 11 million failing septic systems that pollute drinking water supplies, playgrounds and beaches, back up into homes and damage shellfish and other aquatic life.
- In 2001 Reduced human health risks and nonpoint source loadings from the approximately 11 million failing septic systems that pollute drinking water supplies, playgrounds and beaches, back up into homes and damage shellfish and other aquatic life.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
States which adopt the Voluntary Management Guidelines for On-site Wastewater Treatment Systems.	0	2	4	States

Baseline: The Agency's National Information Management System shows 3,909 SRF projects initiated as of June 1998.

Reducing Nonpoint Source Pollution

- In 2003 Reduce nonpoint source sediment and nutrient loads to rivers and streams.
- In 2002 Reduce nonpoint source sediment and nutrient loads to rivers and streams.
- In 2001 Reduced nonpoint source sediment and nutrient loads to rivers and streams by ensuring that 5% of AFOs have developed Comprehensive Nutrient Management Plans (CNMPs).

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	Units
AFOs for which Comprehensive Nutrient Management Plans (CNMPs) are developed. (cumulative)	5%	10%		AFOs
Clean Water SRF loaned for projects to prevent polluted runoff.	6			% CW SRF
Number of coastal States and Territories with fully approved coastal nonpoint pollution control programs under the Coastal Zone Act Reauthorization Amendments of 1990. (cumulative)		18	29	States/Tribes
Number of States and Territories reporting data on their ongoing progress in implementing their nonpoint source programs, including geo-location of projects and load reduction estimates.		56		States/Tribes
Clean Water SRF loaned for projects to prevent polluted runoff. (annual)		200	200	M Dollars

Baseline: As of September 1998, 24 states were funding nonpoint and estuary projects with their SRFs.

Verification and Validation of Performance Measures

Performance Measure: Major Point sources are covered by current permits; Minor Point Sources are covered by current permits.

Performance Database: The Permits Compliance System (PCS) will be used to determine which permits have not exceeded their expiration dates. This includes fields for permit issuance and expiration dates for individual permits only. EPA has carried out detailed backlog tracking with PCS data since November 1998 and has hard copies of historical reports since the early 1980s.

Data Source: Regions and states enter data into PCS.

QA/QC Procedures: HQ reviews data submitted by states as part of the QA/QC process. The Office of Water (OW) has generated state-by-state reports listing what appears in PCS for key data fields for facilities and discharge pipes (name, address, Standard Industrial Classification (SIC) code, latitude/longitude, Hydrologic Unit Code (HUC), reach, flow,

issuance date, expiration date, application received date, effective date, etc.). These reports were distributed in January 2001 to state and regional PCS, National Pollutant Discharge Elimination System (NPDES), and Geographic Information Systems (GIS) coordinators to allow states to "see what EPA sees" when it views PCS data. Where discrepancies exist between state and PCS data, OW is identifying such discrepancies and making corrections in PCS, where necessary. Additionally, many states have been collecting and verifying NPDES data on their own, but maintain these data in separate state-level systems (electronic and hardcopy). EPA plans to populate fields in PCS that are currently blank with existing state-level data provided by states.

Data Quality Review: Office of Inspector General (OIG) audits 8100076 (3/13/98) and 8100089 (3/31/98) discussed the need for current data in PCS. OW is categorizing the form in which the data exist at the state level (e.g., currently in PCS, currently in a separate state system, currently in hard copy only). As EPA creates a picture of national PCS data availability, staff are working with individual states and regions to tailor approaches to getting key data into PCS. OW is offering data upload, data entry, and, if necessary, data compilation support to states and anticipates completion of the project by the end of calendar year 2001.

Data Limitations: There are significant data gaps for minor facilities and discrepancies between state databases and PCS.

New/Improved Data or Systems: EPA headquarters is providing contractor assistance to improve the data quality of PCS. By 2003, PCS is scheduled to be modernized to make it easier to use and to ensure that it includes all needed data to manage the National Pollution Discharge Elimination program.

Performance Measure (PM): Loading reductions (pounds per year) of toxic and non-conventional, and conventional pollutants from NPDES permitted facilities (POTWs, Industries, Significant Industrial Users (SIUs), Confined Animal Feeding Operations (CAFOs), Storm Water (SW), Combined Sewer Operations (CSOs)).

Performance Database: The Permits Compliance System (PCS) will be used for available information on permitted facilities, including SIC codes, flow, and location data. Other databases that may be used include the Clean Water Needs Survey for treatment-level information, the storm water Notice of Intent (NOI) database to determine facilities covered under storm water general permits, the National Oceanic and Atmospheric Administration (NOAA) Rainfall Database for precipitation information, and STORET for water quality information. The data in these databases will be used to model loadings from NPDES permitted facilities. However, data are not available for all categories of dischargers or for all dischargers in each category. Data are particularly lacking for storm water dischargers.

Data Sources: Regions and states enter data into PCS, the Needs Survey, and STORET. NOI data is provided by applicants for coverage under general permits (both storm water and non-storm water) and limited data elements are entered into PCS by some states. Where EPA is the permitting authority, EPA contractors enter storm water NOI data in a separate database. EPA has collected effluent guidelines development data for various industrial categories. NOAA enters data in the Rainfall Database. EPA is collecting Best Management Practices (BMP) effectiveness data from various studies. And EPA is collecting Combined Sewer Overflow (CSO) data from states EPA for required reports to Congress; these data should ultimately reside in PCS.

QA/QC Procedures: EPA reviews critical data submitted by states. Some databases, such as STORET require documentation of the quality of the data along with the data entry. With respect to PCS, EPA has a project underway to work with states to improve the data in PCS (See earlier narrative for "Major/Minor Point Sources Covered by Current Permits.") Load reductions are estimated by modeling the various categories of sources. Actual data will be used to calibrate and verify the models used.

Data Quality Reviews: See earlier narrative for "Major/Minor Point Sources Covered by Current Permits."

Data Limitations: There are significant data gaps in PCS, including reliability issues, for minor facilities, general permits, and specific categories of discharges, such as CAFOs. Additionally, neither monitoring nor flow data are required for certain categories of general permits. The Agency, therefore, is not able to provide sufficient information to measure loadings reductions for all of the approximately 550,000 facilities that fall under the NPDES program.

New/Improved Data or Systems: EPA Headquarters is providing contractor assistance to improve the data quality in PCS. By 2003, PCS is scheduled to be modernized to make it easier to use. As the modernized system is being developed, additional efforts are underway to bolster comprehensive data collection to ensure that the modernized system includes data needed to manage the National Pollutant Discharge Elimination program.

Performance Measure: Clean Water State Revolving Fund (CWSRF) projects that have initiated operations.

Performance Database: Clean Water State Revolving Fund National Information Management System

Data Source: Reporting by municipal and other facility operators. Entry by state regulatory agency personnel and EPA regional staff. Collection and reporting once yearly.

QA/QC Procedures: EPA headquarters is responsible for compiling the data and querying regions as needed. Regions are responsible for collecting the data from their client states and reporting the data to headquarters once yearly.

Data Quality Review: EPA headquarters and regions annually review the data submitted by states.

Data Limitations: None

New/Improved Data or Systems: This system has been operative since 1996. It is updated on an annual basis, and database fields are changed or added as needed.

Statutory Authorities

Clean Water Act
Clean Air Act
Coastal Zone Act Reauthorization Amendments of 1990
Safe Drinking Water Act
Toxic Substances Control Act
Wet Weather Water Quality Act of 2000

Research

Clean Water Act
Clean Air Act
Coastal Zone Act Reauthorization Amendments of 1990
Safe Drinking Water Act
Toxic Substances Control Act